

## Rejection sets off alarms for folks with low self-esteem

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A research subject wired with electrodes to measure eye blinks, an indicator of brain response to different kinds of emotional stimuli. (Ozlem Ayduk and Anett Gyurak/UC Berkeley)

Few can tolerate such romantic or professional rebuffs as "It's not you, it's me" and "we regret to inform you that your application was not successful." But while a healthy dose of self-esteem can absorb the shock of rejection, poor self-esteem can trigger the primal fight-or-flight



response, according to a new study from the University of California, Berkeley.

That doesn't mean people with low self-esteem are doomed to respond defensively to criticism and rejection. The UC Berkeley study suggests that those among them who are better at controlling their impulses are less vulnerable to rejection. This lays the groundwork for further investigation into what people who feel they don't measure up can do to cope with disappointment and maintain close relationships.

"Social rejection is inevitable in society," said Anett Gyurak, a graduate student who co-authored the study with Ozlem Ayduk, a UC Berkeley assistant professor of psychology. "But our findings suggest that if people with low self-esteem can improve their attention control skills, they might feel less terrible about themselves and counter the negative effects of rejection."

While remedies to improve attention control require further study, researchers speculate that training the mind to focus for extended time periods and behavioral therapy that teaches people with low self-esteem to take a more positive or contextual approach to disappointment may help.

The study, funded by a grant from the National Institutes of Mental Health, is published in the October issue of the journal *Psychological Science*. Previous studies have shown that low self-esteem correlates with poor mental health, poor academic achievement and such mood disorders as depression. Next week is national "Mental Health Awareness Week."

For the UC Berkeley study, participants filled out a questionnaire known as the Rosenberg self-esteem scale, which is the most widely used self-esteem measure in the social sciences. Next, they completed a



questionnaire on their ability to focus on tasks at hand without distraction. The 38 females and 29 males were then organized into two groups - low self-esteem and normal-to-high self esteem - depending on how they scored on the Rosenberg scale.

Each participant viewed images showing positive, neutral, negative and rejection themes while being subjected to sporadic loud noises. A startle probe measured the force of their eye-blinks in response to the abrupt sounds. Eye blinks are among the sensory data picked up by the brain stem and limbic circuits, including the amygdala. These brain regions trigger the threat response, a reflex that prepares the body to "fight" or "flee" from perceived attack or harm to survival.

"This ancient evolutionary system is incredibly useful when we are faced with a real physical threat and need to flee quickly from harm's way," Gyurak said. "But in this experiment, participants were minimally threatened in that they were simply asked to view emotionally charged paintings."

As anticipated, all the participants blinked more strongly with each sound in response to such negative images as dead animals or mutilated bodies. Remarkably, however, those with low self-esteem blinked more forcefully in response to rejection themes such as the lonely, alienated people in Edward Hopper's paintings. Paintings with negative themes or acceptance themes, such as lovers embracing, did not elicit the same response in low self-esteem people, the study found.

"The potency with which rejection activates the threat system in people with low self-esteem suggests that fear of rejection runs extremely deep in low self-esteem people," Gyurak said. On a more encouraging note, however, those with low self-esteem who scored higher for attention control, including the ability to focus, were able to tone down their kneejerk reactions to perceived threats, the study found.



"These results show how maladjustment, such as low self-esteem, is determined on many levels, and that having a vulnerability factor such as low self-esteem can be overcome by the ability to control attention, opening the possibility for interventions in populations at risk for mental health problems," Ayduk said.

Previous studies have laid the groundwork for this physiological finding by arguing that self-esteem is part of a primitive emotional warning system that lets you know when you're in danger of being socially excluded. While the evolutionary function of this detection system is intended to motivate people to stay socially connected, the constant anticipation of rejection can run counter to this primal survival function for people with low self-esteem. This is because the emotional warning system gets triggered at the slightest cues of rejection and elicits defensive reactions that may sometimes be unjustified, Ayduk said.

Not surprisingly, people with low self-esteem do not fare well in close relationships as they are hypersensitive and hyper-reactive to dismissal and disapproval cues. Being in constant threat mode can also take a toll on one's mental health, and hinders the ability to place rejection in a rational context.

"Low self-esteem is heavy baggage that plagues people with feelings of inferiority and inadequacy," Gyurak said. "This study suggests that improving concentration and focusing abilities could stop this negative cycle."

Source: UC Berkeley

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